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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/462,909	02/14/2000	ANNIE MEINIEL	065691/0179	5643
75	90 02/13/2002			
FOLEY & LARDNER			EXAMINER	
WASHINGTON HARBOUR 3000 K STREET NW SUITE 500			TURNER, SHARON L	
PO BOX 25696 WASHINGTON, DC 20007-8696			ART UNIT	PAPER NUMBER
	,		1647	/1
			DATE MAILED: 02/13/2002	• '

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No. 09/462,909

Applicant(s)

\_\_\_\_

Meinlel et al.

Examiner

Sharon L. Turner, Ph.D.

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The MAILING DATE of this communication app	pears on the cover sheet with the correspondence address
Period for Reply	
A SHORTENED STATUTORY PERIOD FOR REPLY IS THE MAILING DATE OF THIS COMMUNICATION.	
<ul> <li>Extensions of time may be available under the provisions of 37 CF after SIX (6) MONTHS from the mailing date of this communication.</li> </ul>	ation.
<ul> <li>If the period for reply specified above is less than thirty (30) days, be considered timely.</li> </ul>	a reply within the statutory minimum of thirty (30) days will
	eriod will apply and will expire SIX (6) MONTHS from the mailing date of this
<ul> <li>Failure to reply within the set or extended period for reply will, by s</li> <li>Any reply received by the Office later than three months after the earned patent term adjustment. See 37 CFR 1.704(b).</li> </ul>	statute, cause the application to become ABANDONED (35 U.S.C. § 133). mailing date of this communication, even if timely filed, may reduce any
Status 1) ☑ Responsive to communication(s) filed on <u>11-14</u>	1-01
2a) ☐ This action is <b>FINAL</b> . 2b) ☒ This	action is non-final.
3) Since this application is in condition for allowand closed in accordance with the practice under	ce except for formal matters, prosecution as to the merits is Ex parte Quay/1935 C.D. 11; 453 O.G. 213.
Disposition of Claims	
4) ☑ Claim(s) <u>1-15</u>	is/are pending in the applica
4a) Of the above, claim(s)	is/are withdrawn from considera
5)	is/are allowed.
6)	is/are rejected.
7)	is/are objected to.
8) 🗓 Claims <u>1-15</u>	are subject to restriction and/or election requirem
Application Papers	
9) $\square$ The specification is objected to by the Examiner.	
10) The drawing(s) filed on	•
11) The proposed drawing correction filed on	
12) $\square$ The oath or declaration is objected to by the Exar	niner.
Priority under 35 U.S.C. § 119	
13) Acknowledgement is made of a claim for foreign	priority under 35 U.S.C. § 119(a)-(d).
a) All b) Some* c) None of:	
Certified copies of the priority documents have  Certified copies of the priority documents have	
	ave been received in Application No  documents have been received in this National Stage
application from the International Bure *See the attached detailed Office action for a list of t	eau (PCT Rule 17.2(a)).
14) $\square$ Acknowledgement is made of a claim for domesti	
attachment(s)	
5) Notice of References Cited (PTO-892)	18) Interview Summary (PTO-413) Paper No(s).
6) Notice of Draftsperson's Patent Drawing Review (PTO-948)	19) Notice of Informal Patent Application (PTO-152)
7) Information Disclosure Statement(s) (PTO-1449) Paper No(s).	20)

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#### **DETAILED ACTION**

### Improper Markush

1. Prior to setting forth the restriction requirement, it is pointed out that applicants have presented instant claims in improper Markush format, see Ex parte Markush, 1925 C.D. 126, In re Weber, 198 USPQ 334 and MPEP 803.02 and 806.04.

"Since the decisions in In re Weber \*\*,198 USPQ 328 (CCPA 1978); and In re Haas, 198 USPQ 334 (CCPA 1978), it is improper for the Office to refuse to examine that which applicants regard as their invention, unless the subject matter in a claim lacks unity of invention, In re Harnish, 631 F.2d 716, 206 USPQ 300 (CCPA 1980); Ex Parte Hozumi, 3 USPQ2d 1059 (Bd. Pat. App. & Int. 1984). Broadly, unity of invention exists where compounds included within a Markush group (1) share a common utility and (2) share a substantial structural feature disclosed as being essential to that utility."

The claims are improperly set forth as the genus claims encompassing multiple distinct and peptides, as identified and claimed, which fail to share the characteristics of a genus, i.e., a common utility and a substantial structural feature essential to the disclosed utility.

Alternatively, the claims define multiple structurally distinct compounds capable of different use, with different modes of operation, different function and different effects. A reference against one of the claimed components or methods would not be a reference against the other.

Therefore, the restriction will be set forth for each of the various groups, irrespective of the improper format of the claims, because the claims define inventions which are not proper species.

#### Sequence Compliance

2. This application contains sequence disclosures that are encompassed by the definitions for nucleotide and/or amino acid sequences set forth in 37 CFR 1.821(a)(1) and (a)(2). However, this application fails to comply with the requirements of 37 CFR 1.821 through 1.825 for the

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reason(s) set forth on the attached Notice To Comply With Requirements For Patent Applications Containing Nucleotide Sequence And/Or Amino Acid Sequence Disclosures. Applicant must comply with the requirements of the sequence rules (37 CFR 1.821 - 1.825) before the application can be examined under 35 U.S.C. §§ 131 and 132.

Applicant is given ONE MONTH from the mailing date of this communication within which to comply with the sequence rules, 37 CFR 1.821 - 1.825. Failure to comply with these requirements will result in ABANDONMENT of the application under 37 CFR 1.821(g). Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a). Direct the reply to the undersigned. Applicant is requested to return a copy of the attached Notice to Comply with the reply.

Prior to examination it has been noted that the claims appear to encompass sequences which are not represented by a representative SEQ ID NO. In particular, it is noted that claim 1 for example recites variables  $A_1$  and  $A_2$  which are defined as corresponding to amino acid sequences from 1-5 amino acids in length, with the noted exceptions. However, the Examiner notes that SEQ ID NO:1 only accounts for such sequences when the variables  $A_1$  and  $A_2$  are equal to 5. A search of SEQ ID NO:1 would not reveal pertinent art when variables  $A_1$  and  $A_2$  are integers 1-4 and thus it appears that the claim encompasses sequences which are not represented by a descriptive SEQ ID NO. The error is reiterated in claims 2-15. It is believed that the omitted sequences could be represented with the addition of representative sequences wherein the appropriate number of Xaa's are represented. Examination of particular subject matter may be precluded until correction.

## Election/Restriction

3. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in response to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-8, 9 and 13 in part, drawn to the first (elected) special technical feature peptide and first appearing use of the peptide for the manufacture of a regenerative medicine.

Group II, claim(s) 1-8, 10 and 13 in part drawn to the elected technical feature peptide and second method of use for the treatment of neurodegenerative disease.

Group III, claim(s) 1-8, 11 and 13 in part, drawn to the elected technical feature peptide and third method of use for the treatment of trauma.

Group IV, claim(s) 1-8 and 12-13 in part, drawn to the elected technical feature peptide and fourth method of use for the treatment of neuroblastoma.

Group V, claim(s) 14-15 in part, drawn to the elected technical feature nucleic acid.

4. Furthermore, in addition to the election of one of the above V groups, further restriction is required under PCT Rule 13.1 to delineate the molecular embodiment to which the claims will be restricted in accordance with the elected group:

If one of Groups I-IV above are elected then a single designated amino acid composition (SEQ ID NO:) is required to be designated to which the search will be limited.

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If Group V above is elected then a single designated nucleic acid composition (SEQ ID NO:) is required to be designated to which the search will be limited.

- 5. The inventions listed as Groups I-V do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the peptides and nucleic acids differ in sequence structure, length, function, effects and capable use. The methods use different steps and different reagents corresponding to the distinct special technical features, and exhibit different effects, functions and outcomes.
- 6. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143). In order to be fully responsive, Applicant is required to elect a single group from designated groups I-V and a single molecular embodiment (sequence) as set forth above to which the claims will be restricted, even though the requirement is traversed. Applicant is advised that neither I-V nor the single molecular embodiment (sequence) are species election requirements; rather each of I-V and the elected sequence are restriction requirements. The subject matter for examination will be restricted to the extent of the subject matter of the elected groups.
- 7. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any

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amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(I).

8. Any inquiry of a general nature or relating to the status of this general application should be directed to the Group receptionist whose telephone number is (703) 308-0196.

Papers relating to this application may be submitted to Technology Center 1600, Group 1640 by facsimile transmission. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). Should applicant wish to FAX a response, the current FAX number for Group 1600 is (703) 308-4242.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharon L. Turner, Ph.D. whose telephone number is (703) 308-0056. The examiner can normally be reached on Monday-Friday from 8:00 AM to 4:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Kunz, can be reached at (703) 308-4623.

Sharon L. Turner, Ph.D. February 12, 2002

EARY L. KUNZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600